

CLAIMS

- 1.- A support crossbeam for an instrument panel adapted to be assembled between two side elements of a frame of an automotive vehicle next to a front part of an interior, of the type obtained by pressure die-casting of a light metal alloy and integrating several anchoring and supporting configurations, characterized in that it is formed by a single part (50) of an elongated configuration extending between first and second ends (51, 52), said single part (50) comprising a general profile with an open cross-section with at least one tubular portion (1a, 1b) with a closed cross-section in at least one of said first or second ends (51, 52).
- 2.- A crossbeam according to claim 1, characterized in that it comprises first and second tubular portions (1a, 1b) with a closed cross-section, each portion in a respective one of said first and second ends (51, 52).
- 3.- A crossbeam according to claim 1 or 2, characterized in that said general profile of an open cross-section is adapted to be demolded in a transverse direction of the crossbeam and said tubular portion or first and second tubular portions (1a, 1b) of a closed cross-section is(are) adapted to be demolded in the longitudinal direction of the crossbeam.
- 4.- A crossbeam according to claim 1, characterized in that corresponding first and second anchoring flatbars (9a, 9b) are formed in the first and second ends (51, 52), which anchoring flatbars extend transversely and are adapted to be fixed respectively to said two side elements of the mentioned frame of the automotive vehicle.
- 5.- A crossbeam according to claim 4, characterized in that said anchoring flatbars (9a, 9b) have a profile with a substantially L-shaped cross-section reinforced with ribbings and are adapted to be demolded partially in the longitudinal direction of the crossbeam, next to the corresponding tubular portions (1a, 1b), and partially in the transverse direction of the crossbeam, next to the open cross-section general profile.
- 6.- A crossbeam according to claim 2, characterized in that said general profile with an open cross-section includes at least one portion (53, 54, 55) comprising a pair of spaced opposite walls (3, 4), joined at one of their respective longitudinal edges to corresponding longitudinal edges of a connecting wall (6), said opposite walls (3, 4) defining, together with said connecting wall (6), a substantially depressed U-shaped cross-section profile.

7.- A crossbeam according to claim 6, characterized in that one of said side walls (3) is an upper wall (3), the other one of said side walls (4) is a lower wall (4), and the connecting wall (6) is a bottom wall (6).

8.- A crossbeam according to claim 7, characterized in that said bottom wall (6) has waviness defining a longitudinal groove (5) the ends of which extend at least partly along the tubular portions (1a, 1b).

9.- A crossbeam according to claim 8, characterized in that the groove (5) has at least one interruption to provide a planar portion (26) with a hole (27) for the passage of a fixing element (28).

10.- A crossbeam according to claim 7, characterized in that the general profile with an open cross-section comprises several transverse ribbings (24) joined at three of their edges respectively to said upper, lower and bottom walls (3, 4, 6) in a position substantially perpendicular thereto.

11.- A crossbeam according to claim 10, characterized in that at least one of said transverse ribbings (24) comprises, next to its free edge, appendages (21) delimiting a hollow (25) provided for housing a cable or wiring harness (23) between them, at least one of said appendages (21) being able to be riveted on said cable or wiring harness (23) to fasten it in said hollow (25).

12.- A crossbeam according to claim 11, characterized in that said hollow (25) forms part of a notch formed in the transverse ribbing (24), said notch being provided for locating and housing said cable or wiring harness (23) at least partially.

13.- A crossbeam according to claim 7, characterized in that at least one of the tubular portions (1a, 1b) comprises, in a front wall (7), appendages (21) delimiting a hollow (25) between them, provided for housing a cable or wiring harness (23), at least one of said appendages (21) being able to be riveted on said cable or wiring harness (23) to fasten it in said hollow.

14.- A crossbeam according to claim 13, characterized in that said hollow (25) forms part of a groove extending along at least part of said front wall (7) of at least one of the tubular portions (1a, 1b), said groove being provided for locating and housing said cable or wiring harness (23) at least partially.

15.- A crossbeam according to claim 3, characterized in that it comprises at least one through hole (19) obtained in the pressure die-casting operation, said

through hole (19) being oriented, to that end, in said transverse demolding direction of the crossbeam.

16.- A crossbeam according to claim 3, characterized in that it comprises at least one through hole (20) obtained in the pressure die-casting operation, said
5 through hole (20) being oriented, to that end, in said longitudinal demolding direction of the crossbeam.

17.- A crossbeam according to claim 16, characterized in that it integrates a pair of support legs (10) extending transversely downwards from a central region (54), said support legs (10) being connected to each other by a crossbeam (11) and
10 adapted to be fixed at their ends to a lower element of said frame of the vehicle.

18.- A crossbeam according to claim 17, characterized in that it integrates two steering column supporting configurations (8) located between said central region (54) and the second end (52), formed by substantially symmetrical transverse mortises defined in said lower wall (4).

15 19.- A crossbeam according to claim 18, characterized in that it further integrates at least one sound equipment supporting configuration (34); at least one knee airbag supporting configuration (12); at least one upper instrument panel supporting configuration (13); at least one central instrument panel supporting configuration (14); at least one first fuse box supporting configuration (32); at least
20 one second fuse box supporting configuration (33); at least one front passenger airbag supporting configuration (15); at least one upper terminal box supporting configuration (16); and at least one first and one second ventilation element supporting configurations (17, 18).